REMARKS

Claims 168-171, 177-180 and 183-206 were pending prior to this Amendment. This Amendment cancels claims 192 and 197-206. Accordingly, the pending claims are 168-171, 177-180, 183-191, and 193-196.

Withdrawal of Finality of Office Action

Applicant requests withdrawal of the finality of the Office Action. An Office Action should be considered to be a non-final Office Action if there is a new ground of rejection and that new ground was not necessitated by either (1) a claim amendment or (2) information submitted by the applicant between the immediately preceding action and the current Office Action. See MPEP 706.07(a).

The immediately prior Office Action was dated September 23, 2008. (A Notice of non-compliant amendment was subsequently issued on April 23, 2009, but that does not affect the present issue.) The only amendment to Claims 168 and 169 done in response to that Office Action that might require the application of Lander et al as a reference was the amendment language specifying that the kits also comprise a reference molecule. However, Claim 176, was already of record as of the date the Office Action of September 23, 2008, and Claim 176 limited Claims 168, 169 (and other claims) by specifying that the kit have a reference molecule. So Lander, to the extent it is an appropriate reference at all, could have been cited in the Office Action of September 23, 2008. Alternatively phrased, the citation of Lander et al as a reference was not necessitated by an Amendment made by Applicant in response to the immediately

preceding Office Action.

As far as Applicant can determine, Lander et al was not necessitated by an Information Disclosure Statement or any other information disclosed by Applicant subsequent to the immediately prior Office Action.

Durbin et al. the other reference newly cited by the Examiner, was apparently only cited by the Examiner in combination with Lander et al., specifically to fill a gap in Lander et al.'s disclosure – that Lander et al. does not teach approaches for manipulating plasma in order to separate it for minimizing platelet activation and/or protease activity.

Accordingly, Applicant requests that the Office Action of September 1, 2009 be considered a non-final Office Action.

Amendment to Claims

The amendments to Claims 171 and 194 remove superfluous language.

Claim 195 is amended to account for the fact that Claim 192 has been canceled.

The amendments to Claims 168 and 169 are discussed below.

Rejection of Claims 168-171, 177, 180, 192-195 and 197-206 under 35 U.S.C. 112, first paragraph (Paragraph 9 of the Office Action)

The Examiner has rejected these claims because they "embody a host of molecules that range in structure and conformation, see specification pages 11, 13, 14, 27 and 41". The plethora of derivatives of thrombospondin molecules have not been identified in the claims and consequently the term embodies any molecule."

In response, claims 168 and 169 have been amended to eliminate derivatives to fragments (and peptides). Claims 170, 171, 177, 180 and 193-195 depend directly on Claims 168 and/or 169 and therefore are similarly limited by the amendments.

Applicant reserves the right, in a continuation or other application related to the present one, to claim kits with the derivatives.

Rejection of Claims 192-195 and 201-206 under 36 U.S.C. 112, second paragraph. (Paragraph 11 of the Office Action)

This rejection is based on the assertion that Claims 192-195 and 201-206 set forth "means" within the claims but without disclosure of structure, material or acts for performing the recited function. This rejection is traversed on the grounds that follow.

The various means, as specified in Claim 192 are: a device for separation of plasma, heparin, a heparin fragment, a protease inhibitor, a platelet inhibitor, and a clotting inhibitor. This list is split into two parts, one part covered in Claim 193 the other in Claim 194. Therefore Claims 193 and 194, together afford the same claim coverage as Claim 192. Accordingly, Applicant has cancelled Claims 192 to simplify the prosecution.

Claims 201-206 have also been cancelled.

In Claim 193, the means plus function clause is now defined structurally as referring to one or more of the following structures heparin, a heparin fragment, a protease inhibitor, a platelet inhibitor, and a clotting inhibitor. As a result is the rejection is traversed with respect to Claim 193.

Claims 194 specifies that the kit must comprise a device for separation of plasma. (The

phrase "means for" has been deleted as being superfluous.) Separation of plasma is understood in the art as the process of eliminating the cellular components of blood (red blood cells, white blood cells and platelets) otherwise suspended in plasma, thereby generating cell-free, platelet-poor plasma. In the kits, a device to separate plasma is useful because it would eliminate platelets thereby minimizing the opportunity for platelet activation, which results in the release of thrombospondin into the plasma. (See application at page 29, lines 17-19 and 23-28). Such devices are so well known in the art (e.g., centrifuges, filters that allow pass-through of the plasma but not the red blood cells, white blood cells or platelets) that a more detailed description of structure is not needed. As a result, Applicants traverse the rejection as regards Claim 194..

In view of the foregoing, the rejection is also traversed for dependent claim, Claim 195.

Rejection of Claims 168-171, 177, 180, 183-191 and 197-200 under 35 U.S.C. 102(e) as being anticipated by Lander et al (US Patent No. 6,727,063 B1; Paragraph 13 of the Office Action)

These claims have been rejected on the grounds that Lander et al. describes a method for detecting thrombospondin using a reference molecule. This rejection is traversed on the grounds that follow.

Claims 197 and 198 have been cancelled. The remaining rejected independent claims are 168, 169, 180, and 183. If Lander et al. does not anticipate any of those claims, it will not anticipate a claim dependent solely on those unanticipated claims.

Claims 180 and 183 (and its dependent claims 184-191) require 2 binding agents, one that binds to thrombospondin but not its fragments (or specified fragments), and one that binds to

both thrombospondin and its fragments. Lander et al. does not disclose such a two-binding agent kit, nor does Lander et al. make such a kit obvious.

Claim 168 specifies thrombospondin reference molecules located within the span of thrombospondin from I-165 to Y-982. Lander et al. in contrast does not disclose a comparable limitation on the location and size of reference molecules for a kit. Indeed Lander et al does not refer explicitly to the size of reference molecules or which part of thrombospondin they should correspond to. Lander states that "Preferred polypeptides are at least 10 contiguous amino acids and comprise the polymorphic amino acid, e.g., a portion of SEQ ID NO:2 which is at least 10 contiguous amino acids and comprises the serine at residue 700..." Lander et al, Col. 4, lines 3-7." However the aforementioned statement is not provided in the context of a discussion of reference molecules.

Thrombospondin as defined in SEQ ID NO: 2 of Lander et al. is 1170 residues in length. (Col. 249) - the same as that specified for thrombospondin in Applicant's application in SEQ ID NO:38. Lander's "preferred polypeptides" could, among many other possibilities, be: (1) the entire thrombospondin molecule, (2) a fragment starting at residue 700 and ending at residue 1170; and (3) a fragment starting at residue 1 and ending at residue 700. So even if Lander et al.'s preferred molecules are understood to refer to their preferred reference molecules, those reference molecules would not be limited, as in Applicant's claim 168, to the region of thrombospondin extending from residues I-165 to Y-982. This difference precludes Lander et al. from anticipating Applicant's Claim 168.

It is noted that Lander et al, at Col. 4, lines 7-9, also discusses preferred polypeptides for a modified version of thrombospondin, SEQ ID NO: 4, that is only 961 residues in size quite

different from the 1170 amino acid-sequence that is the reference point for Applicant's invention.

Claim 169 specifies that the reference molecules consist of all or part of one of six specified domains of thrombospondin (inter-chain disulfide bonds, a procollagen-like domain, a type 1 repeat, a type 2 repeat, and a type 3 repeat; and a collagen type V binding domain). This limitation is much more restrictive as to the size of the reference molecules and the location within thrombospondin that they correspond to than Lander et al. is. Therefore Lander et al. does not anticipate Claim 169.

Rejection of Claims 168-171, 177, 180, 183-206 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lander et al (US Patent No. 6,727,063 B1) and further in view of Durbin et al (US Patent No. 5,992,551) (Paragraph 15 of the Office Action)

Claims 180 and 183 (and its dependent claims 184-191) require 2 binding agents, one that binds to thrombospondin but not its fragments (or specified fragments), and one that binds to both thrombospondin and its fragments. Neither Lander nor Lander and Durbin in combination, make such a two-antibody kit obvious.

As to Claims 168 and 169 (and claims dependent on them), this rejection is traversed on the grounds that the deficiencies in Lander et al. as an anticipating reference, discussed above (lack of meaningful limitations on the reference molecules), are not supplied by Durbin et al.

Claims 197-206 have been cancelled. Dependent claims 170, 171, and 184-196 do not depend on obvious claims and therefore are not obvious.

Should the Examiner believe that anything further is desirable in order to place the

application in even better condition for initial examination and allowance, the Examiner is invited to phone Applicants' undersigned attorney at **610-724-2952**.

Respectfully submitted,

CAESAR, RIVISE, BERNSTEIN,
COHEN & POKOTILOW, LTD.

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By Allan H. Fried
Allan H. Fried
Registration No. 31,253
Customer No. 03000
(215) 567-2010
Attorneys for Applicants

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